

# Highlighting social identity and peer group norms can increase water conservation

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New research suggests that targeted use of behavioural 'nudges' can encourage people to conserve water.

Researchers at the University of East Anglia (UEA) found that rather than giving people general information about the importance of saving water, emphasising the water conserving actions of others in the same [social group](#)—for example university students or [local residents](#)—encourages similar behaviour changes and reduces [water demand](#).

Water scarcity is a growing global issue and within the UK water shortages are recognised as one of the greatest climate change-related threats. This week the UK's Environment Agency warned that England will not have enough water to meet demand within 25 years.

The new study explored the use of social norms in campaigns to motivate people to save water. Previous research has found that these behavioural-based approaches, or 'nudges' can impact on other pro-environmental behaviours, for example around saving energy and encouraging recycling.

The findings, published in the *Journal of Environmental Psychology*, demonstrate that existing interventions can be enhanced by focusing on a specific, psychologically meaningful social identity—a technique known as an 'ingroup norms appeal'.

Social identities describe our sense of attachment to a place or a group of people (our 'ingroups'). These identities influence our attitudes, emotions, and behaviour, sometimes even when we are not aware of their effects. Therefore, if we provide information about the behaviour of others who share an important social identity with us, our attitudes and behaviours will change accordingly.

Lead researcher Ellin Lede carried out the work as part of her Ph.D. with the School of Environmental Sciences.

"Ensuring a sustainable water supply requires a multifaceted approach,

and this will become increasingly important as demand for water continues to rise and climate change alters water availability," said Dr. Lede.

"Our findings have implications for the design of environmental campaigns. Traditionally, [water conservation](#) communication campaigns deliver general water saving information. However, campaigns informed by behavioural science can increase their effectiveness and should form an integral part of demand reduction strategies.

"Activating a sense of regional identity, such as a local city, neighbourhood or community, and communicating credible information about the behaviour and practices of other group members should strengthen perceived norms regarding water conservation, resulting in increased water-savings efforts among community members."

The research involved four studies carried out in Norfolk, in the East of England, a region prone to water shortages. The first two, involving UEA students and Norwich residents, provided initial evidence that using an ingroup norms appeal message can increase individuals' intentions to engage in water conservation behaviours.

Study three was conducted in a UEA halls of residence. Stickers with water conservation messages were placed in shower rooms, in an attempt to get students to reduce their shower time by one or two minutes—a saving of seven to 14 litres of water per shower.

The social norms message aimed to encourage this behaviour by suggesting it represented a common water saving strategy used by other people generally. In the ingroup norms message, saving water was presented as something that was normal among other students at the university. An illustration of a university mascot also accompanied the text to reinforce social identity. No sticker was placed in rooms assigned

to a control group.

After a two-week trial, the ingroup norms message was found to be more effective than the social norms one, with students reducing their time in the shower by more than a minute.

The fourth study was conducted with Anglian Water through the Anglian Centre for Water Studies at UEA, a collaboration between the university and water company. It aimed to increase sign-ups to a free residential retrofitting service, whereby a plumber fits water efficiency devices in customers' homes.

An ingroup norms appeal message was added to the beginning of a letter sent to 1148 households, stating that people in Norfolk care about the environment and saving water, and other residents had already signed up to the programme. It also included an image of a windmill, a historic feature of the area. After six weeks, sign-up rates were significantly higher among households who received the amended letter, compared to the 1158 who received a standard letter without the additional messaging.

Vittoria Danino, Anglian Water's head of the Centre for Water Studies at UEA, said: "The significant increase in customers signing up to receive our water efficiency devices shows how successful the study by UEA was. We are continually encouraging our customers to become more water efficient and are always looking into a variety of ways to communicate this.

"Our customers in the East of England are already some of the most water savvy in the country. On average each of us use 133 litres each per day compared to the national average of about 140-145 litres. That equates to the difference of about 4million toilet flushes every day. There is always more we can all do to use water wisely, all year round."

Co-author Dr. Rose Meleady, of UEA's School of Psychology, said:  
"Across four studies conducted in a water scarce region in England we demonstrated the ways in which the social identity approach can maximize the power of behaviour-based interventions and encourage a shift in intentions and behaviour to promote household water conservation.

"As shown in the study with Anglian Water, just integrating the ingroup norms appeal text in the letter increased the rate of sign-up to a water conserving initiative. Something as simple as changing the form of messaging, and in a way that doesn't cost any more, can make messaging more effective and lead to behaviour change."

'Optimizing the influence of social norms interventions: Applying social identity insights to motivate residential [water](#) conservation', Ellin Lede, Rose Meleady, Charles Seger, is published in the *Journal of Environmental Psychology*.

**More information:** Ellin Lede et al, Optimizing the influence of social norms interventions: Applying social identity insights to motivate residential water conservation, *Journal of Environmental Psychology* (2019). [DOI: 10.1016/j.jenvp.2019.02.011](https://doi.org/10.1016/j.jenvp.2019.02.011)

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